WATER QUALITY BMPS SCONTICUT NECK FAIRHAVEN, MA

FINAL DESIGN JUNE 29, 2017

PREPARED BY:

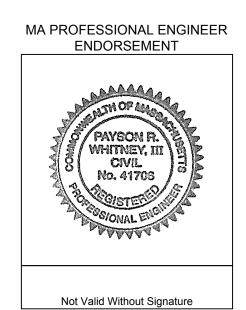


environmental consulting & engineering services

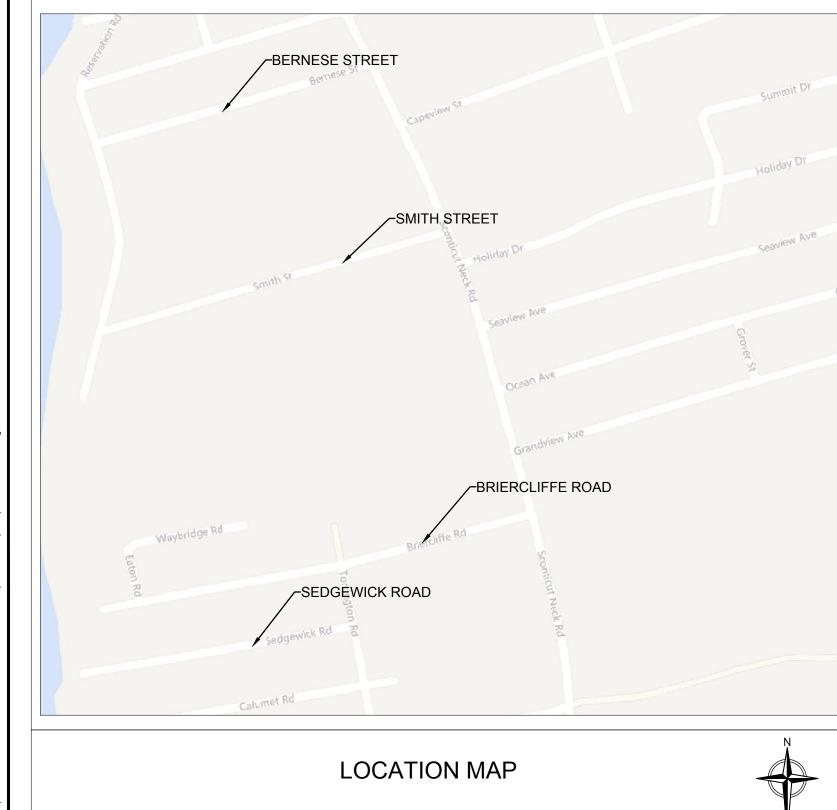
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INDEX OF DRAWINGS							
DRAWING	SHEET NO	. DRAWING TITLE					
	1	COVER SHEET					
N-1	2	NOTES AND LEGEND					
C-1	3	PROPOSED CONDITIONS, STORMWATER BMP - BERNESE STREET					
C-2	4	PROPOSED CONDITIONS 2, STORMWATER BMP - BERNESE STREET					
C-3	5	PROPOSED CONDITIONS, STORMWATER BMP - SMITH STREET					
C-4	6	PROPOSED CONDITIONS, STORMWATER BMP - SEDGEWICK ROAD					
C-5	7	PROPOSED CONDITIONS, STORMWATER BMP - BRIERCLIFFE ROAD					
EC-1	8	SEDIMENT AND EROSION CONTROL-BERNESE STREET					
EC-2	9	SEDIMENT AND EROSION CONTROL-SMITH STREET					
EC-3	10	SEDIMENT AND EROSION CONTROL-SEDGEWICK ROAD					
EC-4	11	SEDIMENT AND EROSION CONTROL-BRIERCLIFFE ROAD					
D-1	12	DETAILS					
D-2	13	DETAILS					
D-3	14	DETAILS					
ATTACHMENTS: EXISTING CONDITIONS PLANS PROVIDED BY GCG ASSOCIATES							
1640-BASE-FINAL		BERNESE STREET AND SMITH STREET EXISTING CONDITIONS PLAN NO. 1 OF 3					
1640-BASE-FINAL		BERNESE STREET AND SMITH STREET EXISTING CONDITIONS PLAN NO. 2 OF 3					
1640-BASE-FINAL		BERNESE STREET AND SMITH STREET EXISTING CONDITIONS PLAN NO. 3 OF 3					
1640 SEDGEWICK		BRIERCLIFFE ROAD AND SEDGEWICK ROAD EXISTING CONDITIONS PLAN NO. 1 OF 1					



- 2. RESOURCE AREA BOUNDARIES DETERMINED BASED ON FIELD DELINEATION CONDUCTED BY ESS GROUP, INC. ON 07/06/2016 AND 03/23/2017.
- 3. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE ORDER OF CONDITIONS (MA DEP FILE NO. SE 23-1253) ISSUED BY THE FAIRHAVEN CONSERVATION COMMISSION ON JUNE 26, 2017.

CONSTRUCTION NOTES:

- 1. THE CONTRACTOR SHALL CALL "DIG SAFE" AT 1-888-344-7233 AT LEAST 72 HOURS PRIOR TO EXCAVATION.
- 2. THE CONTRACTOR SHALL NOTIFY ALL APPROPRIATE AGENCIES AND UTILITY COMPANIES, IN WRITING, A MINIMUM OF 48 HOURS PRIOR TO ANY CONSTRUCTION WITHIN 15 FEET OF A UTILITY LINE.
- 3. LIMITS OF DISTURBANCE (LOD) HAVE BEEN SET ON THE DRAWINGS. HOWEVER, THESE MAY BE EXTENDED OR REDUCED IN ORDER TO MEET FIELD CONDITIONS. THE ENGINEER SHALL REVIEW AND APPROVE ANY CHANGE IN THE LOD PRIOR TO ANY ALTERATION.
- 4. THE CONTRACTOR SHALL, AS SPECIFIED BY THE ENGINEER, ESTABLISH THE LOD ON THE SITE BY ACCEPTABLE VISIBLE MARKERS. ALL WORK AND EQUIPMENT SHALL BE CONFINED TO WITHIN THESE LIMITS, UNLESS OTHERWISE SPECIFICALLY AUTHORIZED.
- 5. NO CHANGES ARE TO BE MADE UNLESS AUTHORIZED BY THE OWNER.
- 6. THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE FEDERAL, STATE, AND LOCAL SAFETY CODES, REGULATIONS, LEGAL REQUIREMENTS, PERMIT CONDITIONS, ETC.
- 7. THE CONTRACTOR SHALL TAKE ADEQUATE PRECAUTIONS TO PROTECT ALL WALKS, STREETS, PAVEMENTS, HIGHWAY GUARDS, CURBING, EDGING, TREES AND PLANTINGS, ETC. ON OR OFF THE PREMISES, AND SHALL REPAIR AND REPLACE OR OTHERWISE MAKE GOOD AT HIS/HER OWN EXPENSE AS REQUIRED BY THE ENGINEER ANY ITEMS DAMAGED AS A RESULT OF THE CONTRACTOR'S WORK.
- 8. THE CONTRACTOR SHALL DISPOSE OF ALL RUBBISH, AND DEBRIS IN ACCORDANCE WITH THE SPECIFICATIONS AND ALL APPLICABLE CODES AND REGULATIONS. THE CONTRACTOR SHALL LEAVE THE PROJECT SITE IN SAFE AND CLEAN CONDITION UPON COMPLETION OF THE SITE CLEARANCE WORK.
- 9. THE CONTRACTOR SHALL PROVIDE ADEQUATE BRACING AND SHORING OF EXCAVATIONS IN ACCORDANCE WITH THE REQUIREMENTS OF ALL GOVERNING CODES AND REGULATIONS.
- 10. CONSTRUCTION SEQUENCE SHALL BE COORDINATED TO MINIMIZE DISTURBANCE OF EXISTING CONDITIONS AND OPERATIONS.
- 11. WHERE AN EXISTING UTILITY IS FOUND TO CONFLICT WITH THE PROPOSED WORK, THE LOCATION, ELEVATION, AND SIZE OF THE UTILITY SHALL BE ACCURATELY DETERMINED WITHOUT DELAY BY THE CONTRACTOR AND THE INFORMATION FURNISHED TO THE ENGINEER FOR RESOLUTION OF THE CONFLICT.
- 12. ALL EXISTING PIPING AND STRUCTURES EXPOSED DURING EXCAVATION SHALL BE ADEQUATELY SUPPORTED, BRACED, OR OTHERWISE PROTECTED DURING CONSTRUCTION ACTIVITIES.
- 13. ALL NECESSARY FEES AND CONSTRUCTION PERMITS SHALL BE OBTAINED AND PAID FOR BY THE CONTRACTOR.
- 14. WORK WITHIN PUBLIC WAYS SHALL COMPLY WITH APPLICABLE MUNICIPAL AND STATE REQUIREMENTS.
- 15. THE CONTRACTOR SHALL USE DESIGNATED LOCATIONS WITHIN THE ESTABLISHED LIMIT OF WORK TO ACCESS THE SITE.
- 16. CONTRACTOR IS RESPONSIBLE FOR REVIEWING, UNDERSTANDING, AND COMPLYING WITH ALL PERMIT CONDITIONS.
- 17. IF THE PROJECT WILL INVOLVE TOTAL GROUND DISTURBANCE OF 1 ACRE OR MORE, REGISTRATION FOR A NPDES CONSTRUCTION GENERAL PERMIT MUST BE OBTAINED BY THE CONTRACTOR.

SEDIMENT & EROSION CONTROL

- 1. THE CONTRACTOR SHALL PROVIDE EROSION CONTROL MEASURES, AS SPECIFIED ON THE DRAWINGS, AND AS REQUIRED BY THE PERMITS.
- 2. EROSION CONTROL MEASURES SHALL BE INSTALLED AND MAINTAINED AS SHOWN HEREIN OR AS DIRECTED BY THE OWNER/APPLICANT.
- 3. PERIMETER SOIL AND EROSION CONTROLS SHALL BE PLACED PRIOR TO ANY CONSTRUCTION ACTIVITIES WITHIN THE TRIBUTARY WATERSHED. ALL SOIL AND EROSION CONTROLS SHALL BE CHECKED AND REPAIRED AS NEEDED.
- 4. EROSION CONTROL MEASURES SHALL BE INSPECTED WEEKLY AND AFTER EACH STORM EVENT GREATER THAN 0.25" OF RAINFALL. ALL DAMAGED MEASURES SHALL BE REPAIRED AND/OR REPLACED. ACCUMULATED SEDIMENT AS DESCRIBED BELOW, SHALL BE STOCKPILED FOR LATER REUSE.
- 5. ALL SOIL STOCKPILES SHALL BE SURROUNDED BY EROSION CONTROL BARRIERS REGARDLESS OF THEIR DURATION OF EXPOSURE. SOILS TO BE STOCKPILED FOR A PERIOD OF MORE THAN 30 DAYS SHALL BE TEMPORARILY SEEDED AND MULCHED.
- 6. SOIL STOCKPILES SHALL NOT BE LOCATED WITHIN 25 FEET OF A WETLAND.
- 7. CONTRACTOR TO BEGIN PERMANENT AND TEMPORARY STABILIZATION OF ALL CUT AND FILL SLOPES WITHIN 72 HOURS OF THEIR COMPLETION.
- 8. AREAS TO REMAIN UNSTABILIZED FOR A PERIOD OF MORE THAN 14 DAYS SHALL BE TEMPORARILY SEEDED AND MULCHED.
- 9. PERMANENT SEEDING SHALL OCCUR BETWEEN MARCH 1 AND JUNE 15, OR BETWEEN AUGUST 15 AND OCTOBER 15.
- 10. THE SITE SHALL BE LEFT IN STABLE CONDITION AT THE END OF EACH DAY.
- 11. TEMPORARY EROSION CONTROL MEASURES SHALL BE INSTALLED AROUND ALL STOCKPILES.
- 12. REMOVE ALL TEMPORARY EROSION CONTROLS UPON COMPLETION

UTILITIES NOTES:

- 1. BEFORE STARTING CONSTRUCTION, THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR MAKING ALL NECESSARY ARRANGEMENTS AND FOR PERFORMING ANY NECESSARY WORK INVOLVED IN CONNECTION WITH THE DISCONTINUANCE OR JURISDICTION OF THE UTILITY COMPANIES, SUCH AS ELECTRICITY, TELEPHONE, WATER, GAS AND ANY SYSTEM OR SYSTEMS WHICH WILL BE AFFECTED BY THE WORK TO BE PERFORMED UNDER THIS CONTRACT.
- 2. UNLESS OTHERWISE NOTED OR APPROVED BY THE ENGINEER, THE CONTRACTOR SHALL MAINTAIN ALL EXISTING UTILITIES.
- 3. IF REQUIRED, OVERHEAD LINES SHALL BE RELOCATED BY THE UTILITY COMPANY AT THE CONTRACTOR'S EXPENSE.
- 4. THE CONTRACTOR SHALL EXERCISE EXTREME CARE WHEN EXCAVATING NEAR AND BACKFILLING IN THE VICINITY OF EXISTING UTILITIES, INCLUDING THE USE OF HAND EXCAVATION WHERE APPROPRIATE.
- 5. ALL EXISTING PIPING AND STRUCTURES EXPOSED DURING EXCAVATION SHALL BE ADEQUATELY SUPPORTED, BRACED, OR OTHERWISE PROTECTED DURING CONSTRUCTION ACTIVITIES.
- 6. WHERE AN EXISTING UTILITY IS FOUND TO CONFLICT WITH THE PROPOSED WORK, THE LOCATION, ELEVATION AND SIZE OF THE UTILITY SHALL BE ACCURATELY DETERMINED WITHOUT DELAY BY THE CONTRACTOR AND THE INFORMATION FURNISHED TO THE ENGINEER FOR RESOLUTION OF THE CONFLICT.

LEGEND

BVW · ·	BORDERING VEGETATIVE WETLAND
	BORDERING VEGETATIVE WETLAND 100 FOOT BUFFER
	LAND SUBJECT TO COASTAL STORM FLOWAGE
	COASTAL BEACH/ LAND SUBJECT TO TIDAL ACTION
	CENTERLINE OF STREAM
	TOP OF COASTAL BANK
	COSTAL BANK 100 FOOT BUFFER ZONE
	HIGH TIDE LINE
13	PROPOSED CONTOUR
	STORM DRAIN MANHOLE
S	SANITARY SEWER MANHOLE
TP	TEST PIT LOCATION
	STONE WEIR
	CLEANOUT
	STORMCRETE POROUS PAVEMENT
	AREA TO REMOVE PAVEMENT AND LOAM AND SEED
— — UD —	PROPOSED 6-INCH PERFORATED PVC UNDERDRAIN
D	PROPOSED 6-INCH SOLID DRAIN LINE
—— LOD ——	LIMITS OF DISTURBANCE
——— FS ———	FILTER SOCK
	INLET PROTECTION ON CATCH BASINS

FLARED END SECTION

MA PROFESSIONAL ENGINEER ENDORSEMENT

PAYSON R.
WHITNEY, III
CIVIL
NO. 41708

Not Valid Without Signature

Participants of the services o

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No. REVISION

DRAWN BY: PKN

DESIGNED BY: JMG

APPROVED BY: JMG

WATER QUALITY BMPS SCONTICUT NECK FAIRHAVEN, MA

NOTES AND LEGEND

DRAWING No.

PROJECT No.: F456.000.01

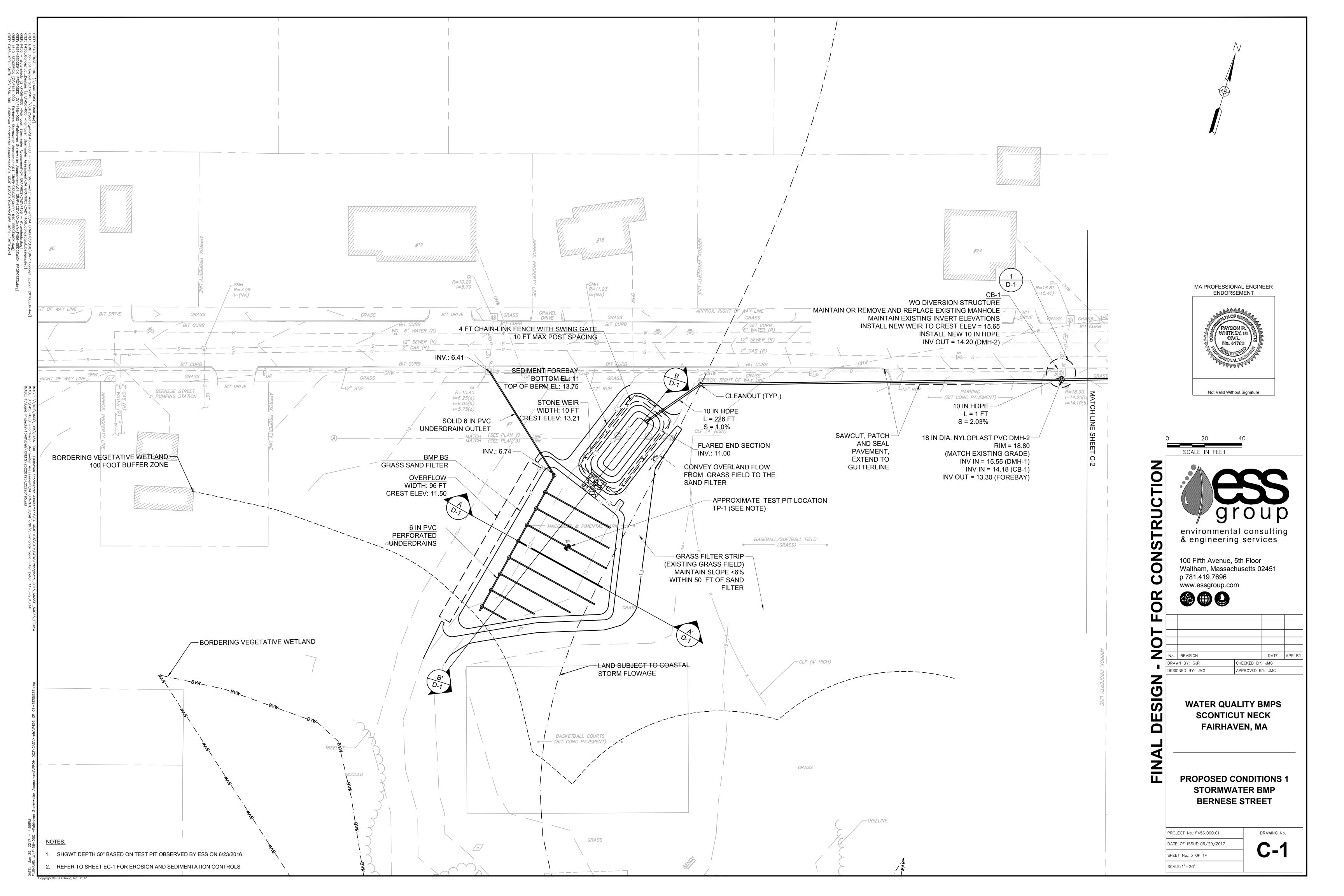
DATE OF ISSUE: 06/29/2017

SHEET No.: 2 OF 14

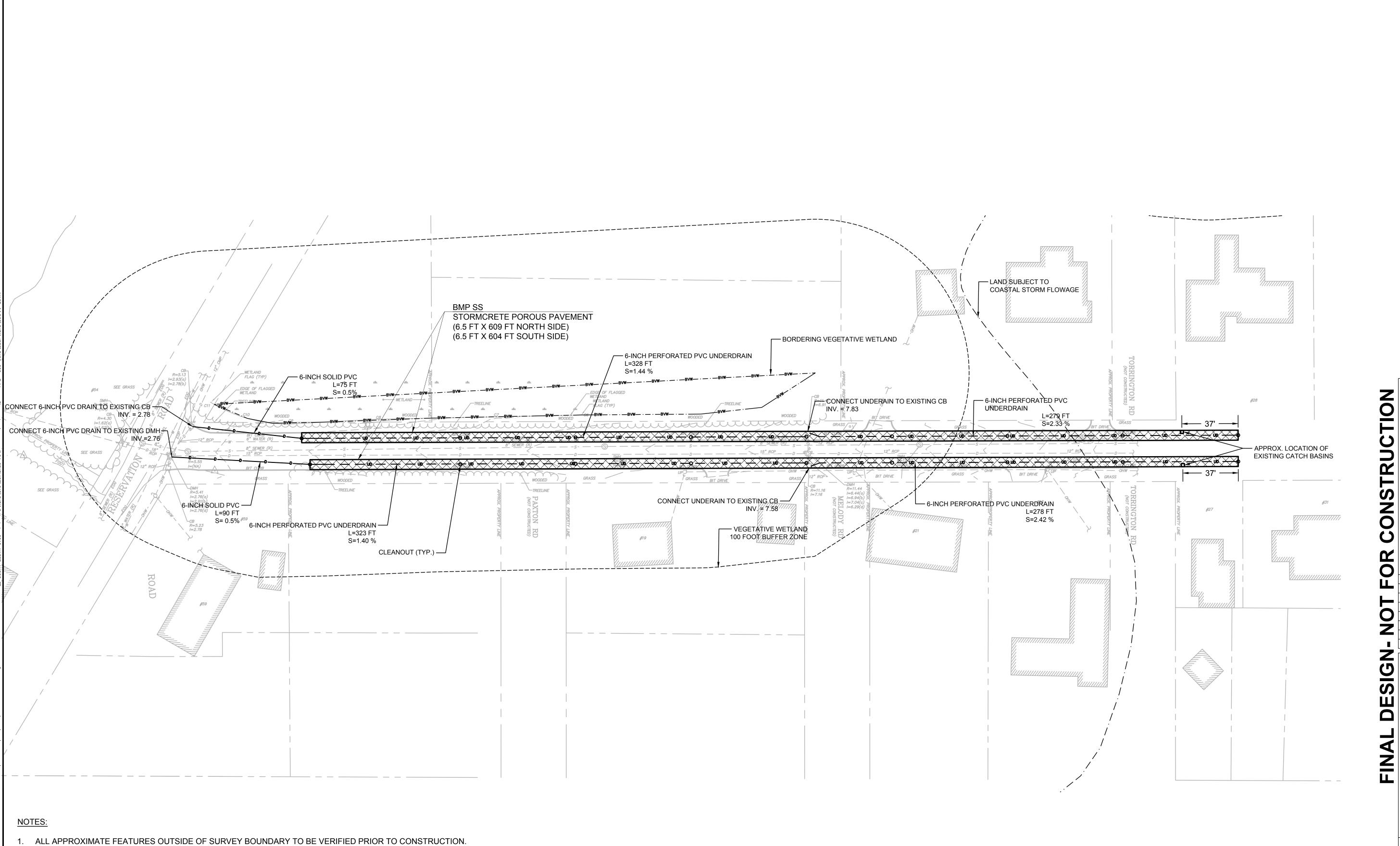
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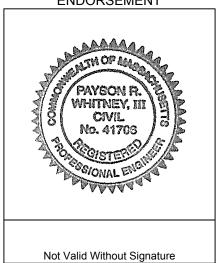
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MA PROFESSIONAL ENGINEER ENDORSEMENT





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No.	REVISION		DATE	APP	
DRAV	WN BY: PKN	CHECKED BY	CHECKED BY: JMG		
DESIG	GNED BY: JMG	APPROVED B	APPROVED BY: JMG		
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WATER QUALITY BMPS SCONTICUT NECK FAIRHAVEN, MA

PROPOSED CONDITIONS STORMWATER BMP **SMITH STREET**

PROJECT No.: F456.000.01 DATE OF ISSUE: 06/29/2017

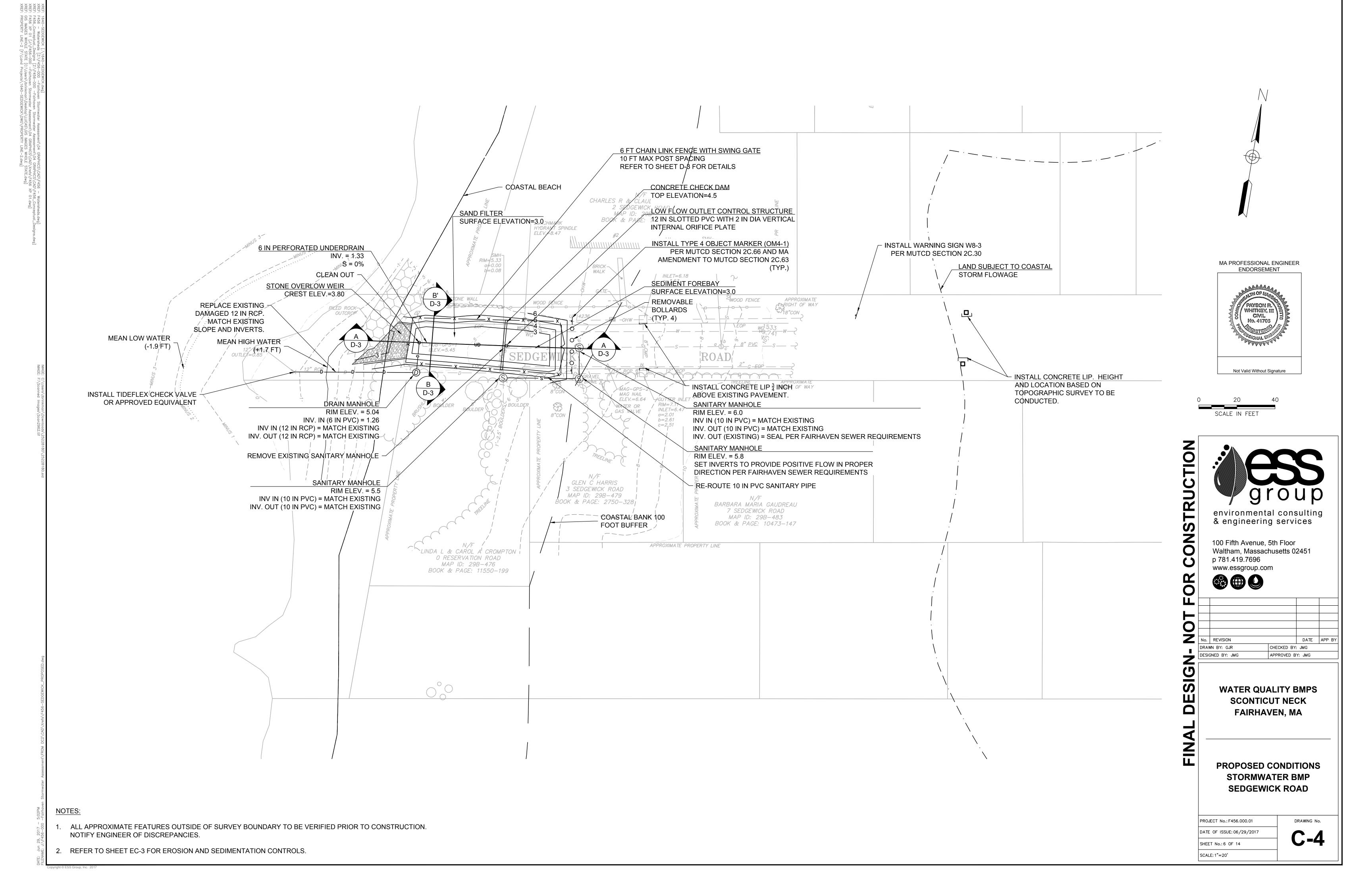
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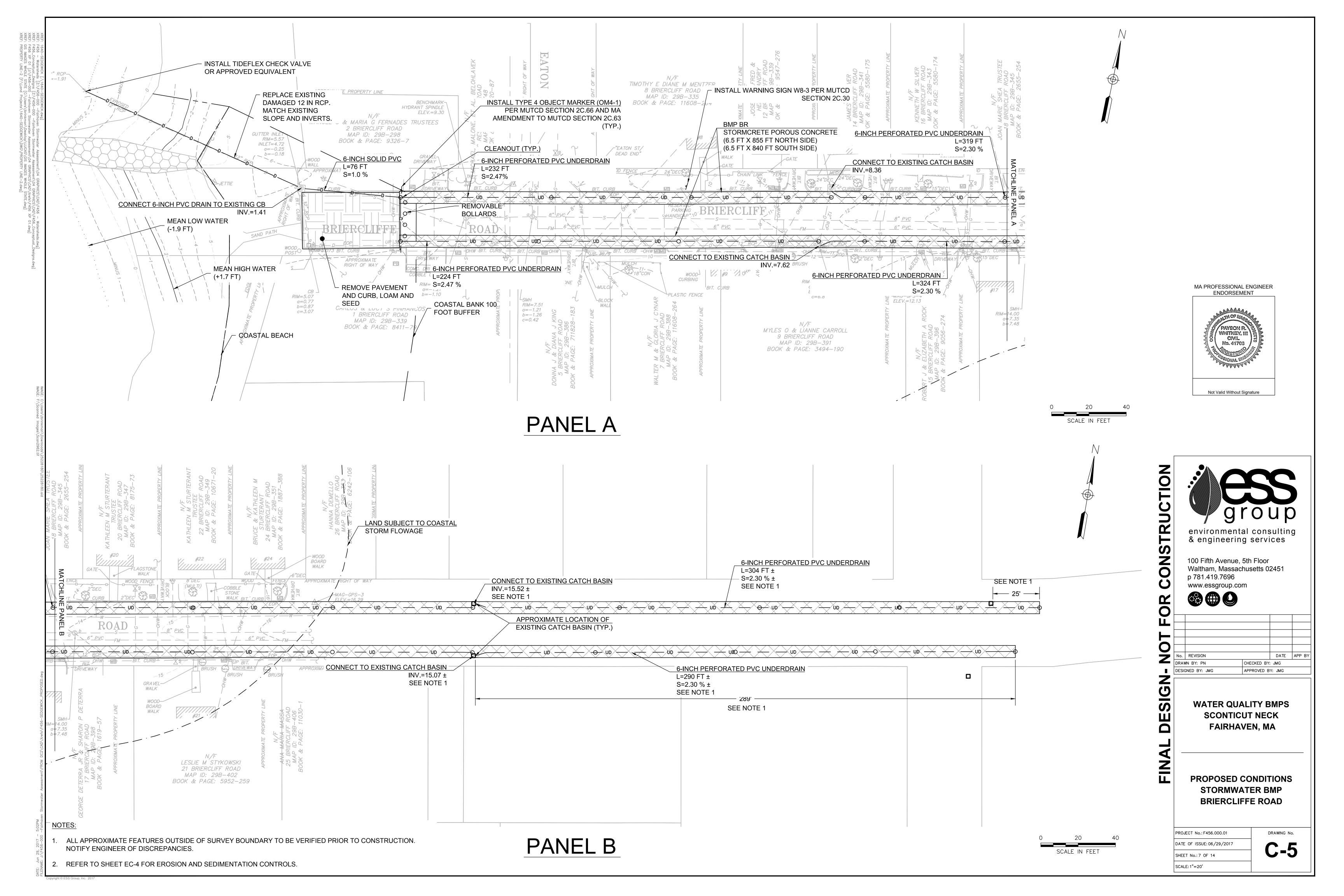
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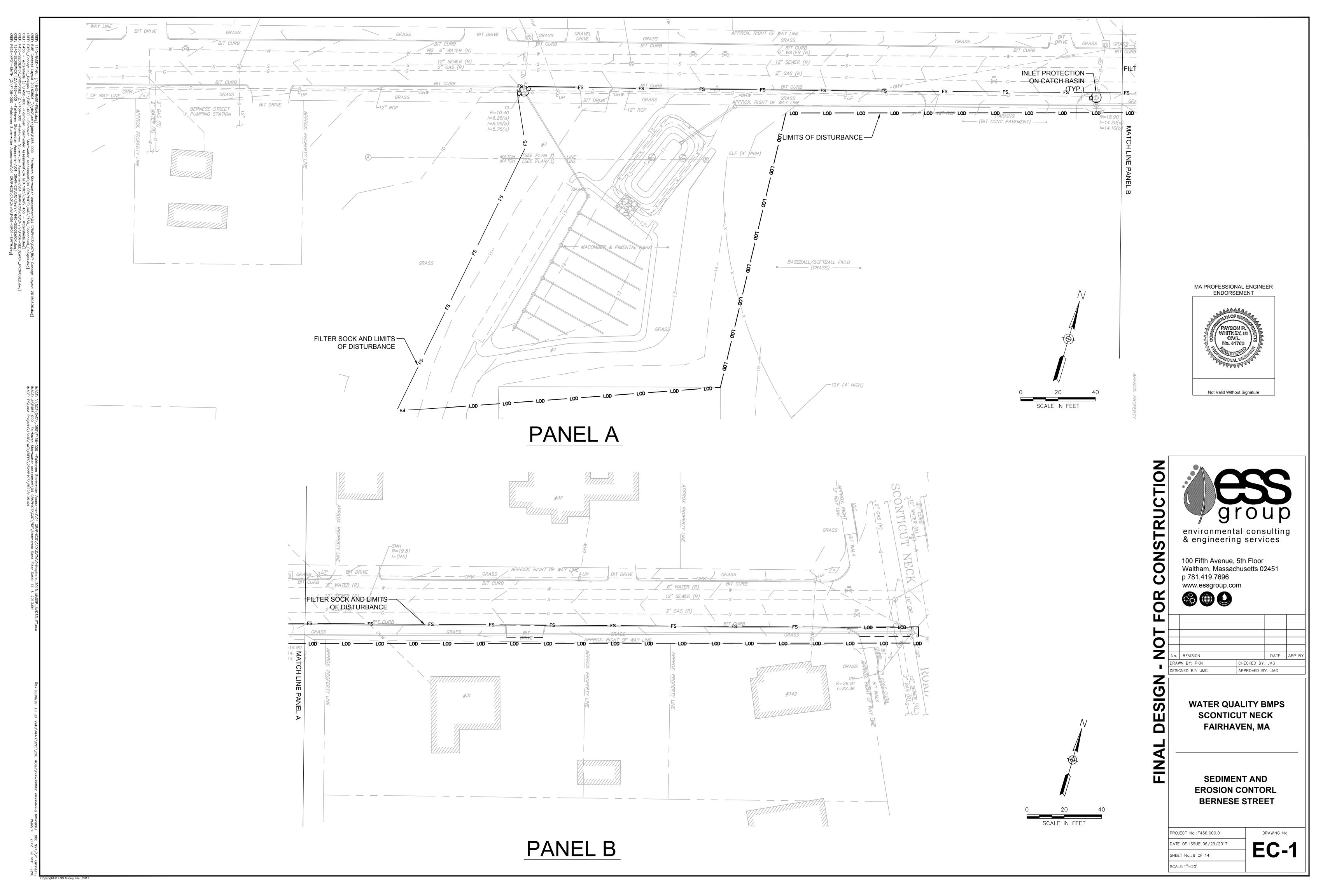
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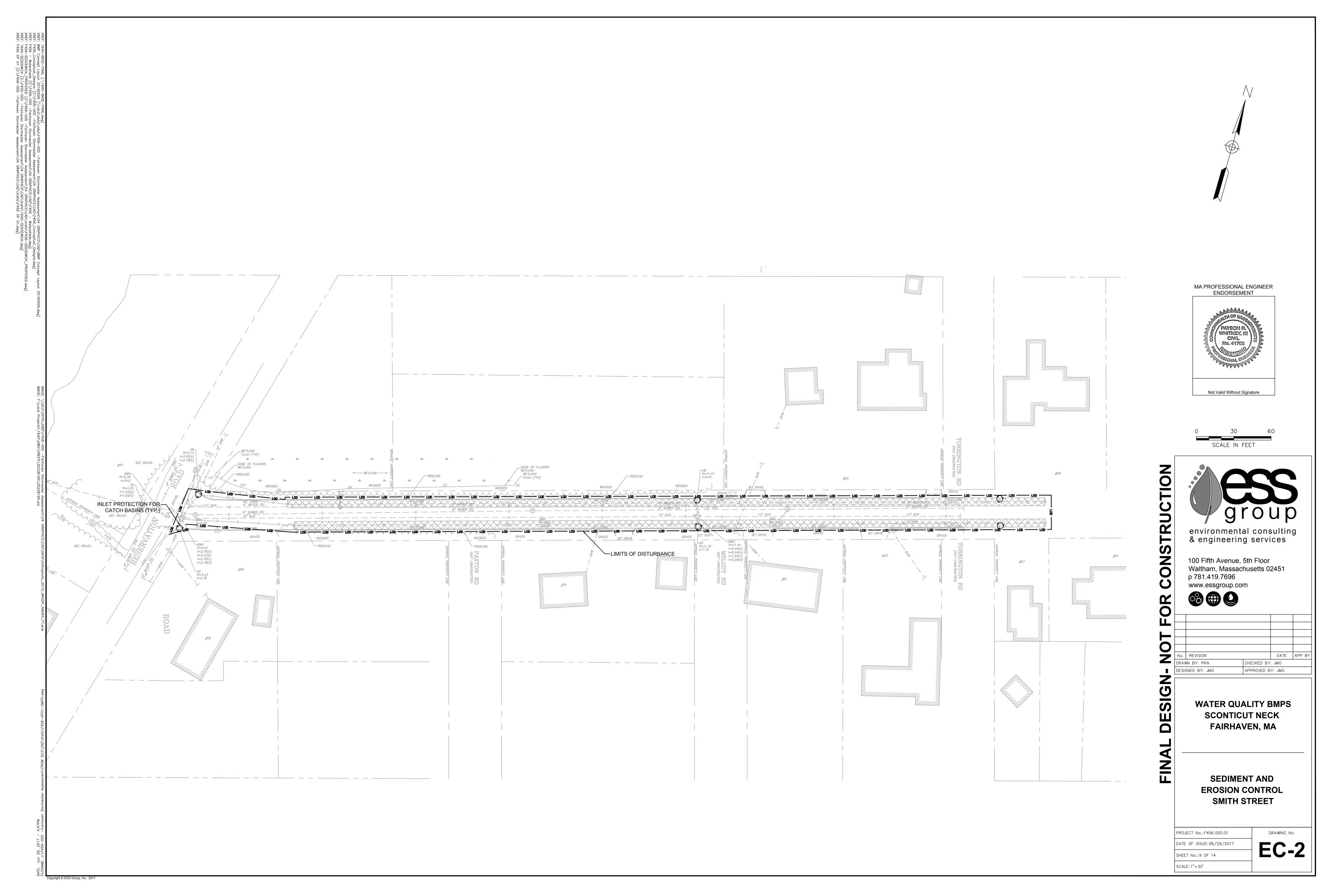
2. REFER TO SHEET EC-2 FOR EROSION AND SEDIMENTATION CONTROLS.

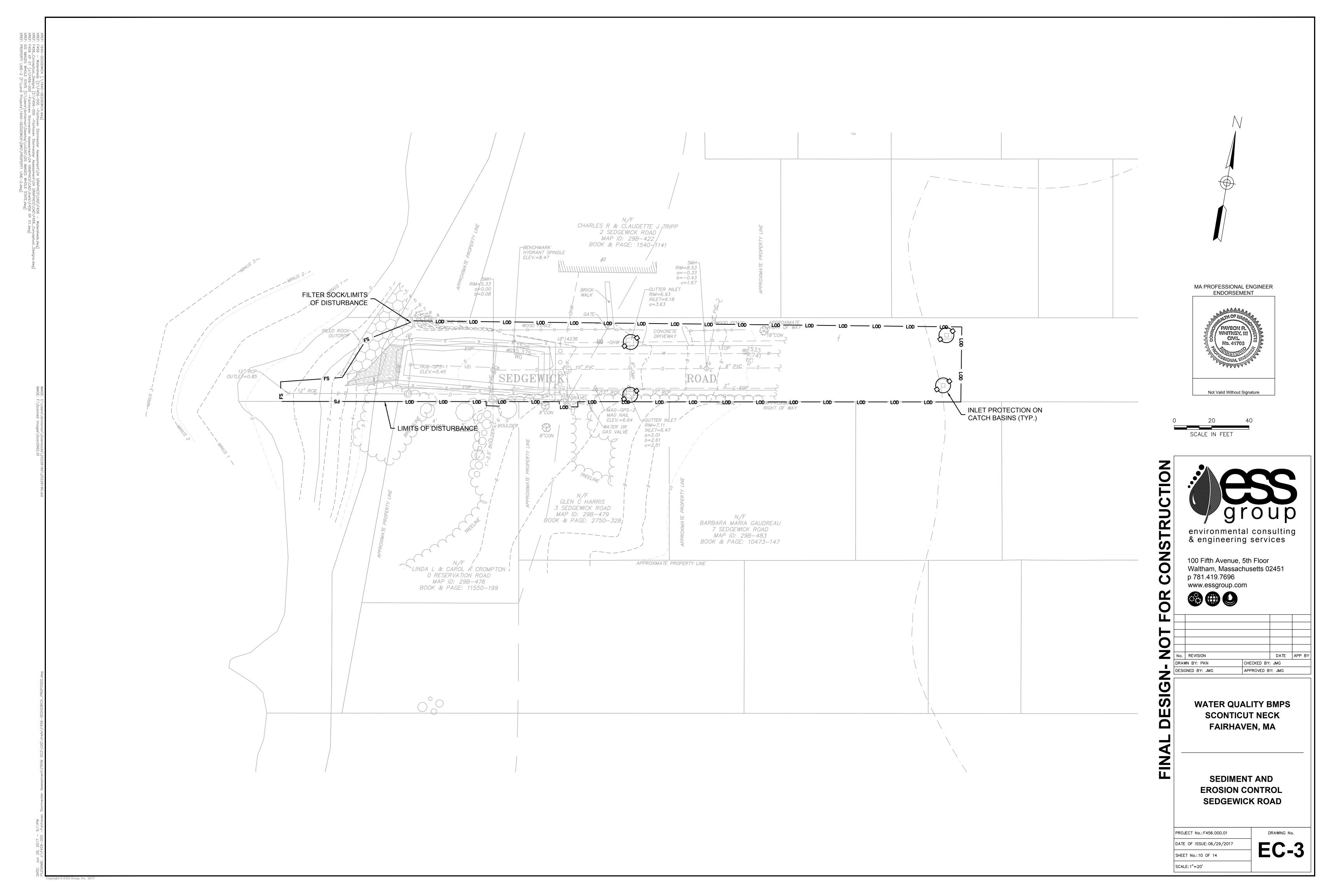
NOTIFY ENGINEER OF DISCREPANCIES.

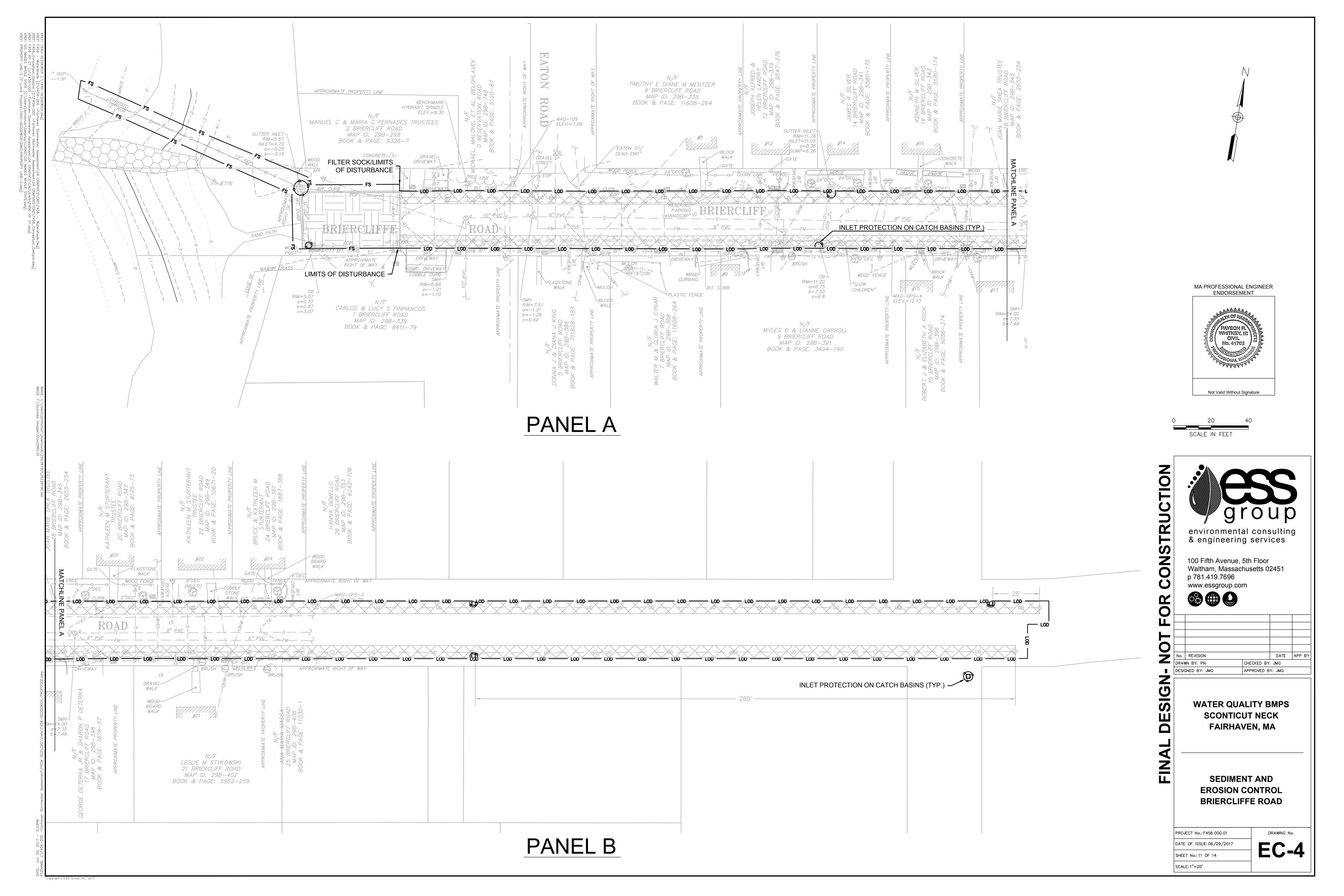


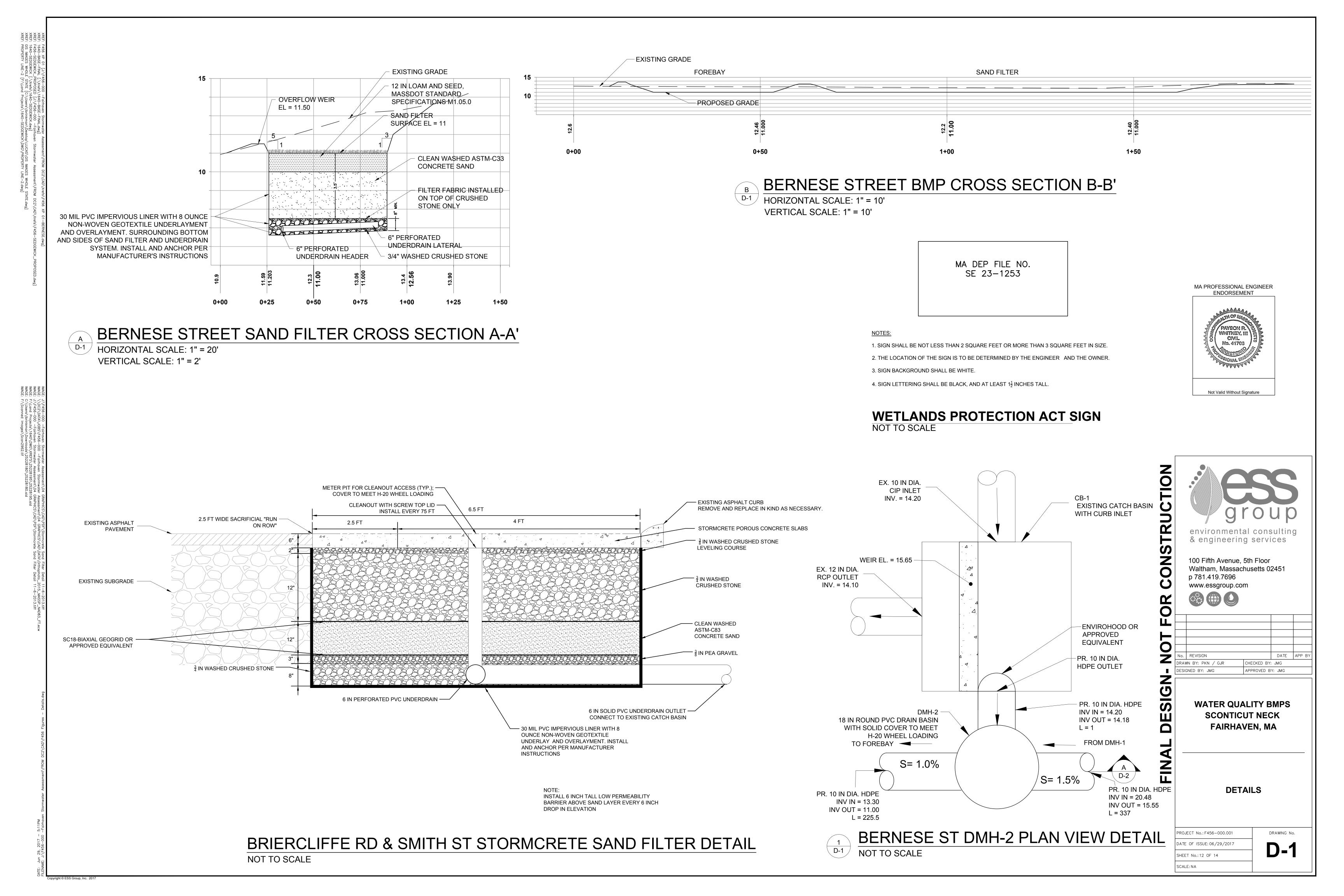


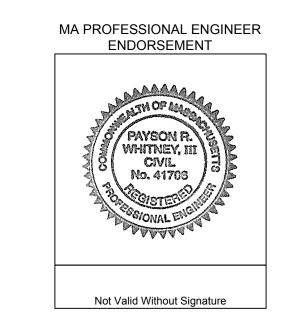


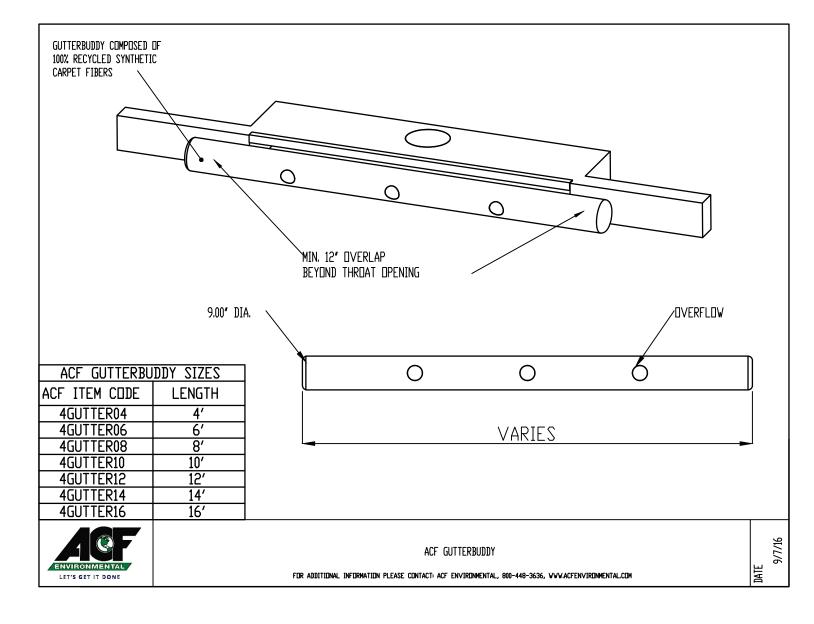












GUTTER BUDDY INLET PROTECTION DETAIL NOT TO SCALE

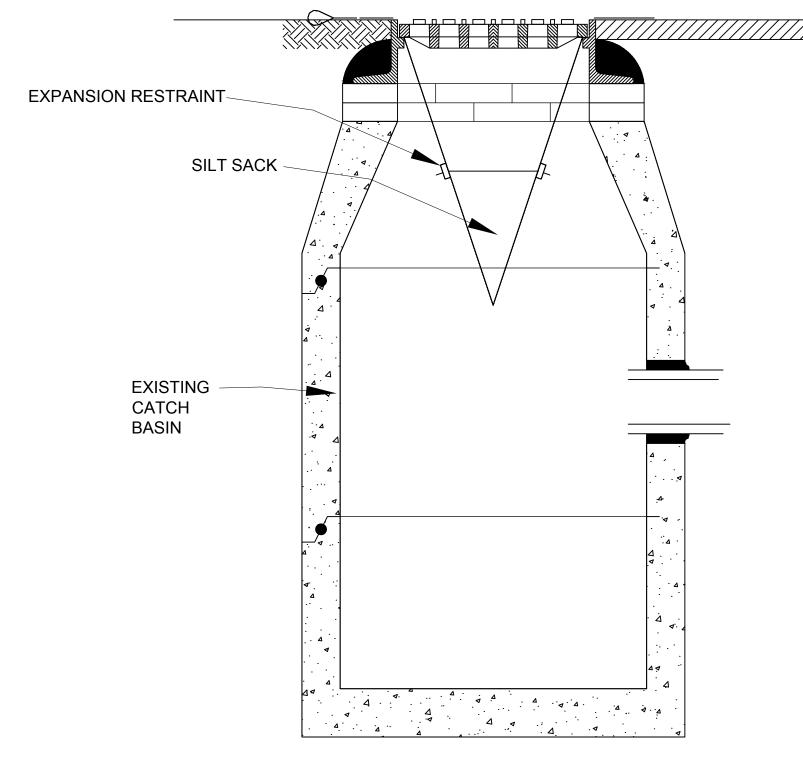
PANELLA TYPE CLEANOUT WITH COUNTERSUNK HEAD PIPE SEAL GASKET * ABOVE DETAIL PROVIDED AS SCHEMATIC SCREW TOP P.V.C. WELL CAP ONLY

EACH OBSERVATION WELL / CLEANOUT SHALL INCLUDE THE FOLLOWING:

- FOR AN UNDERGROUND FLUSH MOUNTED OBSERVATION WELL / CLEANOUT, PROVIDE A TUBE MADE OF NON-CORROSIVE MATERIAL, SCHEDULE 40 OR EQUAL, AT LEAST THREE FEET LONG.
- 2. THE TUBE SHALL HAVE A FACTORY ATTACHED CAST IRON OR HIGH IMPACT PLASTIC COLLAR WITH RIBS TO PREVENT ROTATION WHEN REMOVING SCREW TOP LID. THE SCREW TOP LID SHALL BE CAST IRON OR HIGH IMPACT PLASTIC THAT WILL WITHSTAND ULTRA-VIOLET RAYS AND H-20 WHEEL LOADING.

CLEANOUT DETAIL

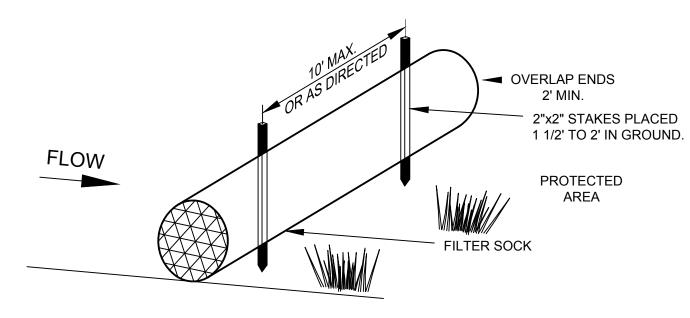
NOT TO SCALE



NOT TO SCALE

TYPICAL SILT SACK DETAIL

NOT TO SCALE



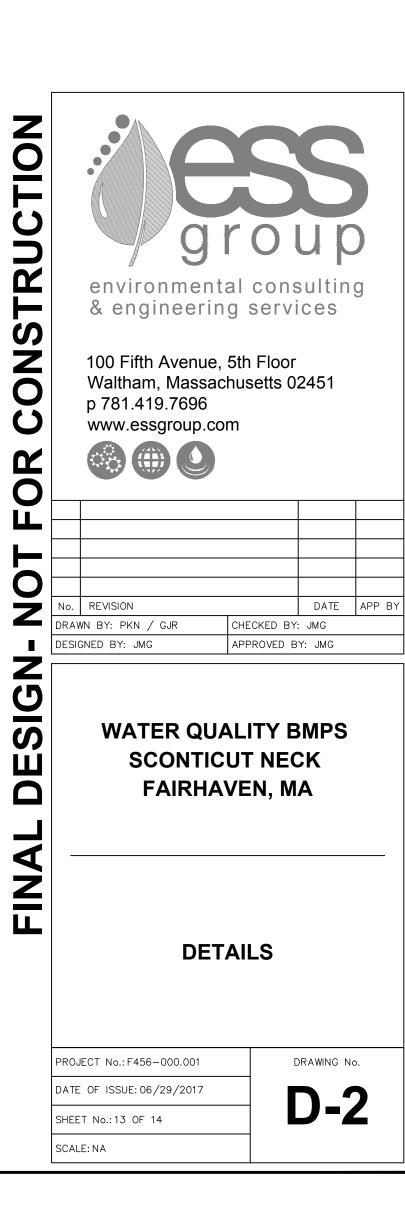
ANCHORING DETAIL

CONSTRUCTION SPECIFICATIONS

- 1. FILTER SOCKS OF 12 IN DIAMETER
- FILTER SOCKS SHALL BE PLACED IN ACCORDANCE WITH THIS PLAN SET AND IN A ROW WITH ENDS OVERLAPPING 2 FEET (MIN.).
- 3. FILTER SOCKS SHALL BE SECURELY ANCHORED IN PLACE BY WOOD STAKES, 10 FEET ON CENTER (MAX).
- 4. INSPECTION SHALL BE FREQUENT AND REPAIR AND/OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.
- 5. FILTER SOCKS WILL BE DE-CONSTRUCTED WHEN THEY HAVE SERVED THEIR USEFULNESS SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE
- 6. FILTER SOCKS SHALL REMAIN IN PLACE AND NOT BE MOVED TO OTHER LOCATIONS IN THE PROJECT.

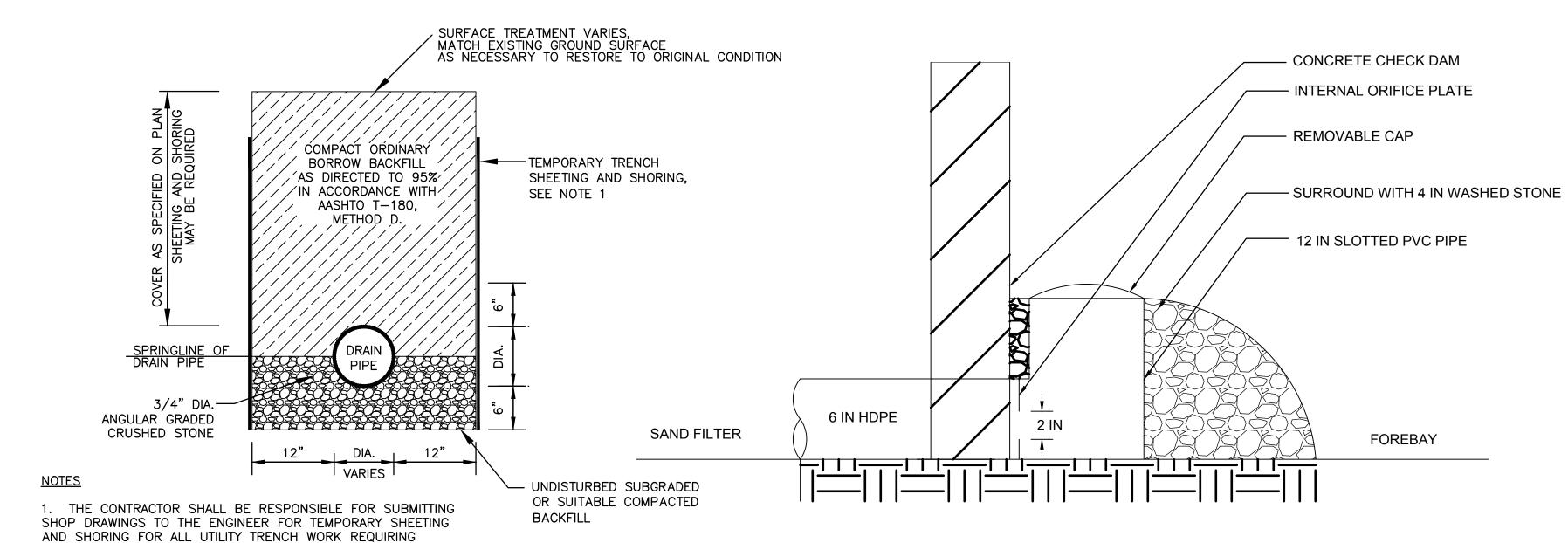
FILTER SOCK DETAIL

NOT TO SCALE



SEDGEWICK ROAD BMP CROSS SECTION A-A'

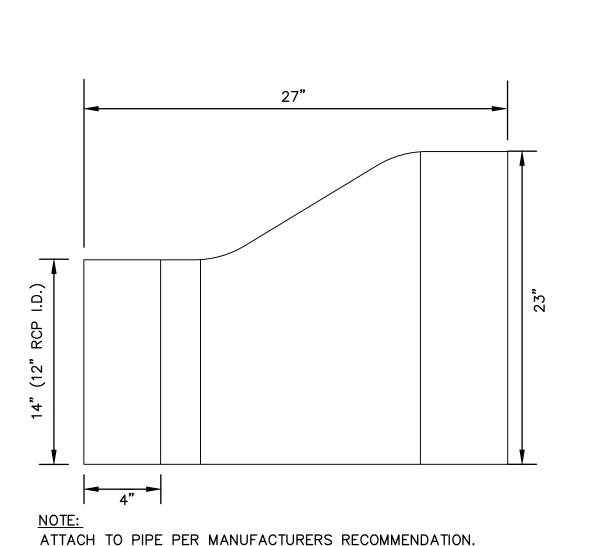
HORIZONTAL SCALE: 1" = 10' VERTICAL SCALE: 1" = 10'



DRAINAGE PIPE TRENCH DETAIL

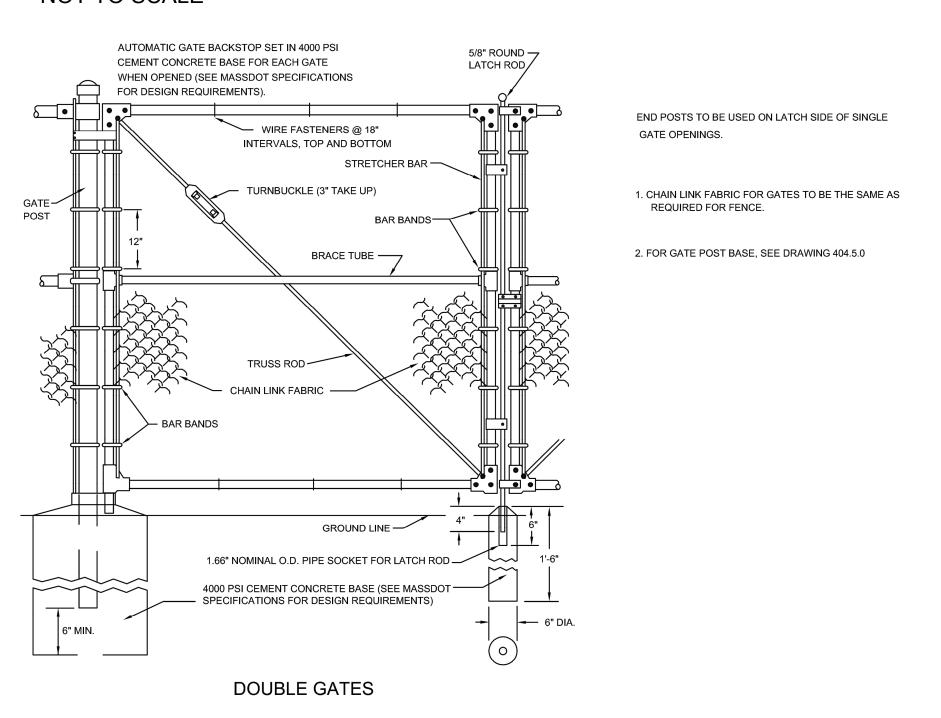
NOT TO SCALE

STABILIZATION DURING CONSTRUCTION.



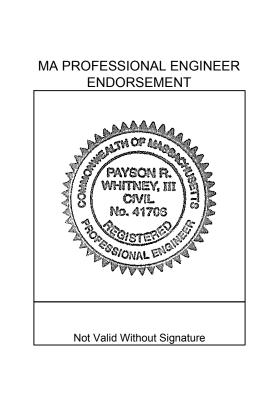
TIDEFLEX SERIES TF-1 CHECK VALVE DETAIL NOT TO SCALE

SEDGEWICK ROAD FOREBAY **OUTLET CONTROL STRUCTURE DETAIL** NOT TO SCALE



CHAIN LINK FENCE DOUBLE GATE DETAIL (2016 MA DOT STANDARD DETAILS E404.6.0) NOT TO SCALE

SAND FILTER SURFACE £L = 3 - EXISTING GRADE - CLEAN WASHED ASTM-C33 CONCRETE SAND 30 MIL PVC IMPERVIOUS LINER WITH 8 OUNCE NON-WOVEN GEOTEXTILE UNDERLAYMENT AND OVERLAYMENT. SURROUNDING BOTTOM AND SIDES OF SAND FILTER AND UNDERDRAIN 3 IN WASHED CRUSHED STONE SYSTEM. INSTALL AND ANCHOR PER - 6 IN PERFORATED MANUFACTURER'S INSTRUCTIONS UNDERDRAIN



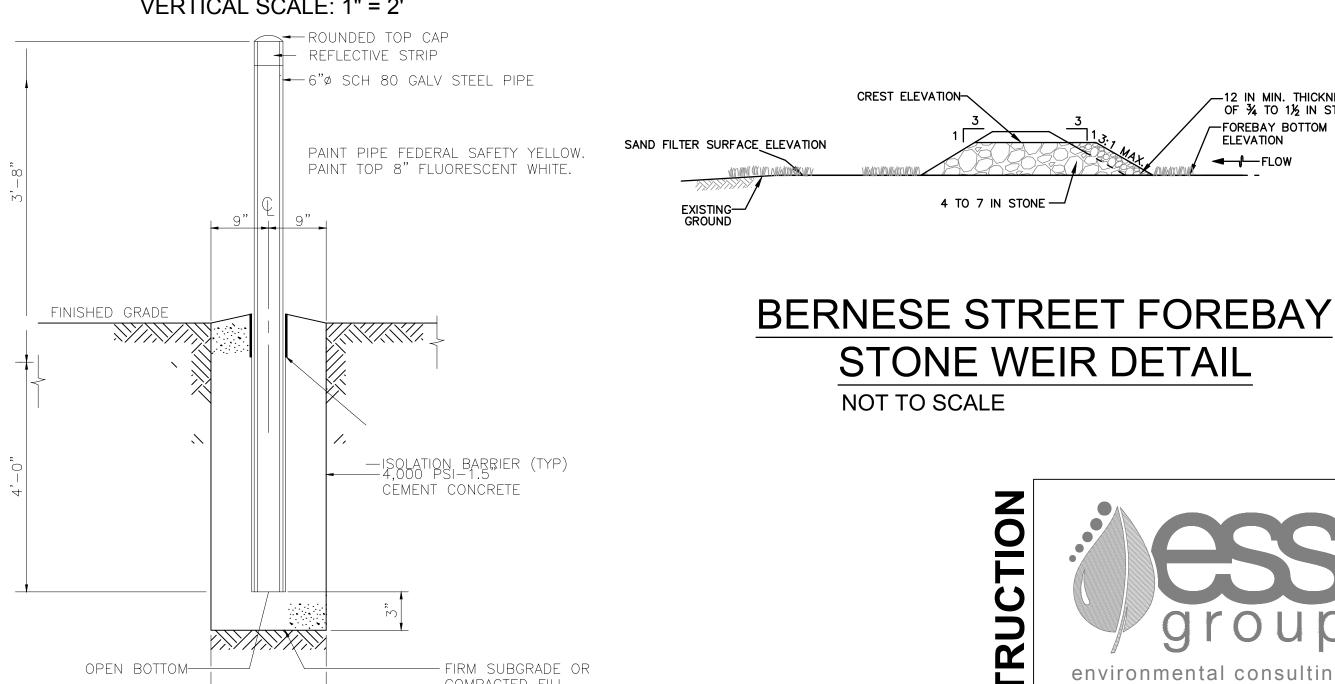
—12 IN MIN. THICKNESS OF ¾ TO 1½ IN STONE

-FOREBAY BOTTOM **ELEVATION**

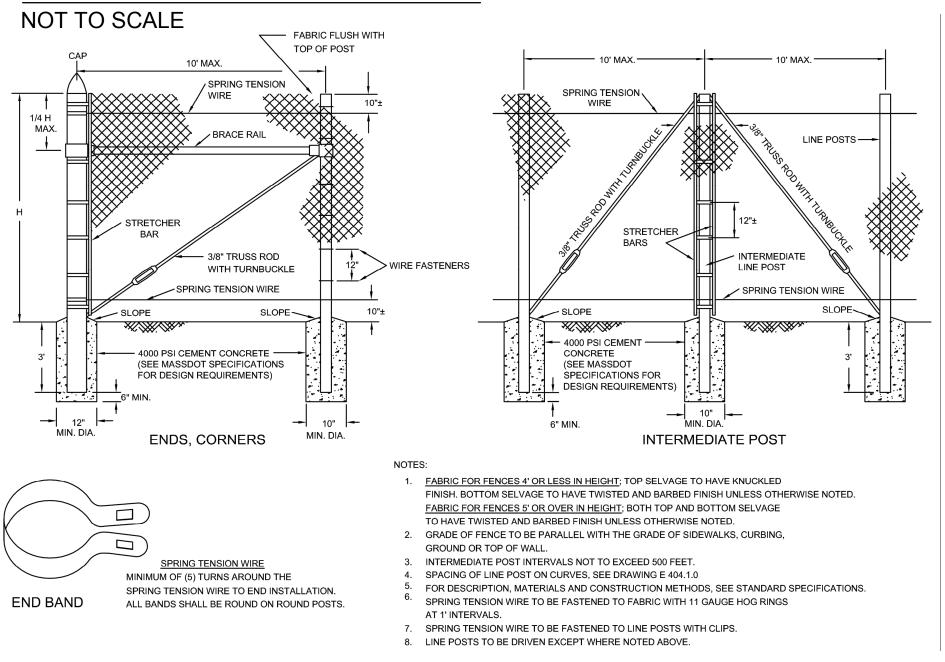
→FLOW

SEDGEWICK ROAD SAND FILTER CROSS SECTION B-B'

HORIZONTAL SCALE: 1" = 20' VERTICAL SCALE: 1" = 2'



REMOVABLE BOLLARD



CHAIN LINK FENCE DETAIL (2016 MA DOT STANDARD DETAILS E404.2.0)

NOT TO SCALE

